

A NEW SPECIES OF *ODONTACARUS* EWING
(ACARINA: TROMBICULIDAE) FROM LIZARDS
OF BAJA CALIFORNIA SUR, MÉXICO¹

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ABSTRACT: *Odontacarus robbinsi* n. sp. is described from larvae taken off *Sceloporus orcutti licki* from 3.2 km S San Antonio, Baja California Sur, Mexico, and additional larvae were from *Sceloporus magister zosteromus*, and *Urosaurus nigricaudus* of the cape region. This species closely resembles *Odontacarus cayolargoensis* Brennan, 1959.

INTRODUCTION

Examination of trombiculid mites found on three species of iguanid lizards from the cape region of Baja California Sur, México, has revealed a new species of *Odontacarus* Ewing. Two other species of *Odontacarus* are known from Baja California. *Odontacarus cognatus* Brennan was taken in the north, and *O. arizonensis* (Ewing), has been found throughout the peninsula on lizards, including the hosts of the new species.

The new species described below bears the name of Mr. Lynn W. Robbins who collected the type hosts as well as numerous other vertebrates and their chiggers.

Odontacarus robbinsi, new species

Figure 1

Types. — Total 25 larvae: Holotype and 18 paratopotypes from 3.2 km S San Antonio, 375 m, Baja California Sur, México, taken 28 June 1967 off 2 *Sceloporus orcutti licki*, LWR670628-3 (holotype + 10); LWR670628-2 (5); *Urosaurus nigricaudus*, LWR670628-8 (2); and *Sceloporus magister zosteromus*, LWR670628-9 (1); and 6 paratypes from 19 km SW San Jose del Cabo, 2-20 m, Baja California Sur, México, taken 3 July 1967 off *Urosaurus nigricaudus*, LWR-670703-1.

The types are in the chigger research collection, California State College, Long Beach. The holotype and one paratype will be sent to

¹Studies upon which this paper is based were supported by the U. S. Public Health Service Research Grant AI-03407 from the National Institute of Allergy and Infectious Diseases.

the Rocky Mountain Laboratory, Hamilton, Montana, and other paratypes will be sent to appropriate institutions and individuals.

Diagnosis. — Larvae, similar to *Odontacarus cayolargoensis* Brennan (1959), in having palpal setal formula B/B/BNN, palpal tarsus 7B, branched galeala, branched sensilla, without parasubterminala I, 1 mastitarsala III with basal barbs; but differing from *O. cayolargoensis* in having 4 dorsal and 3 ventral teeth on the cheliceral blade (5 and 6 in *O. cayolargoensis*), longer tarsala I (32) and tarsala II (20) (12 and 13 respectively in *O. cayolargoensis*), anteromedian setae (AM) in line with anterolateral setae (AL), and posterolateral setae (PL) posterior to, or in line with sensillary bases (AM setae posterior to AL setae, and PL setae anterior to sensillary bases in *O. cayolargoensis*). *Odontacarus robbinsi* differs from *O. arizonensis* and *O. cognatus* in having palpotibial setae BNN (NNN in *O. arizonensis* and BBB in *O. cognatus*), genuala II (absent in others), tarsala II not expanded (distally expanded in *O. arizonensis*, slightly expanded in *O. cognatus*), genuala III (absent in others), and mastitarsala III (present in *O. arizonensis*, absent in *O. cognatus*).

Description. — Larvae (all measurements in microns, with means and extremes of 25 types listed in parentheses). Holotype: body partially engorged, 288 by 230, eyes 2/2 on ocular plates, anterior slightly larger.

Dorsal setal formula 10-8-6-10-8 + 27, total 69; measurements; anterior dorsal seta 50, posterior dorsal seta 40.

Ventral setal formula 2-10-8 + 14, total 34; measurements; sternal seta 27, posterior ventral seta 31. Body setae total 103.

Scutum: PW longer than PSB + ASB, posterior margin rounded (somewhat angular), lightly punctate, flagelliform sensilla with branches on distal third of shaft.

Scutal measurements of holotype (with means and ranges of 25 types in parentheses) AW 61 (63, 59-66), PW 80 (79, 76-87), SB 25 (24, 21-27), ASB 33 (33, 29-38), PSB 25 (24, 22-26), AP 33 (33, 31-38), AM 40 (40, 36-43), AL 38 (38, 36-42), PL 55 (53, 48-59), S 70 (69, 57-76).

Gnathosoma: Cheliceral blade with 4 dorsal and 3 ventral teeth, cheliceral base and capitular sternum punctate, palpal setal formula B/B/BNN, palpal tarsus with 7 branched setae and tarsala 7; palpal claw trifurcate, with dorsal prong largest and curved outward. Tracheae and spiracles present.

Legs: Leg I with 2 genualae, microgenuala, 2 tibialae, microtibiala, tarsala 32 (31, 28-33), microtarsala, subterminala (parasubterminala absent), and pretarsala; Leg II with genuala, microgenuala, 2 tibialae,

tarsala 20 (19, 18-21), microtarsala and pretarsala; Leg III with genuala, tibiala, and mastitarsala, 54, having several basal barbs. Each leg with 6 elongate, lightly punctate segments, terminating in 2 claws and a clawlike empodium, each with 6 onychotriches.

Ecological notes. — Larvae of *Odontacarus robbinsi* were taken from three *Sceloporus orcutti licki*, one *S. magister zosteromus*, and five *Urosaurus nigricaudus*, from three localities in the cape region of Baja California. Nelson (1922) indicated these localities are in the Arid Tropical Zone characterized by a dry climate and a tropical flora. Chiggers associated with *Odontacarus robbinsi* were *O. arizonensis*, *Eutrombicula alfreddugesi*, and *Neoschoengastia* sp.

Specimens examined. — Total of 33 larvae: MÉXICO: BAJA CALIFORNIA SUR, Boca de la Sierra, 12 Aug. 1966, *Urosaurus nigricaudus* (1); Miraflores, 12 July 1963, *Urosaurus nigricaudus* (2); 3.2 km S San Antonio, 6 July 1963, *Urosaurus nigricaudus* (3); 7 July 1963, *Sceloporus orcutti licki* (2); 28 June 1967, 2 *Sceloporus orcutti licki* (16), *Sceloporus magister zosteromus* (1), *Urosaurus nigricaudus* (2); 19 km SW San Jose del Cabo, 3 July 1967, *Urosaurus nigricaudus* (6).

ACKNOWLEDGMENTS

For the loan of paratypes of *Odontacarus cayolargoensis* we thank Dr. James M. Brennan of the Rocky Mountain Laboratory, Hamilton, Montana. Appreciation is also extended to Sr. Dr. Rodolfo Hernández Corzo, el Director General, Dirección General de Caza, Departamento de Conservación de la Fauna Silvestre, Secretaría de Agricultura y Ganadería for permits to collect reptiles and other vertebrates in México. We are indebted to K. K. Asplund, R. M. Davis, E. M. Fisher, L. M. Hardy, J. Knox Jones, Jr., L. W. Robbins, E. L. Sleeper, and J. P. Webb, Jr., for collecting vertebrates and their ectoparasites.

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Accepted for publication June 16, 1969.

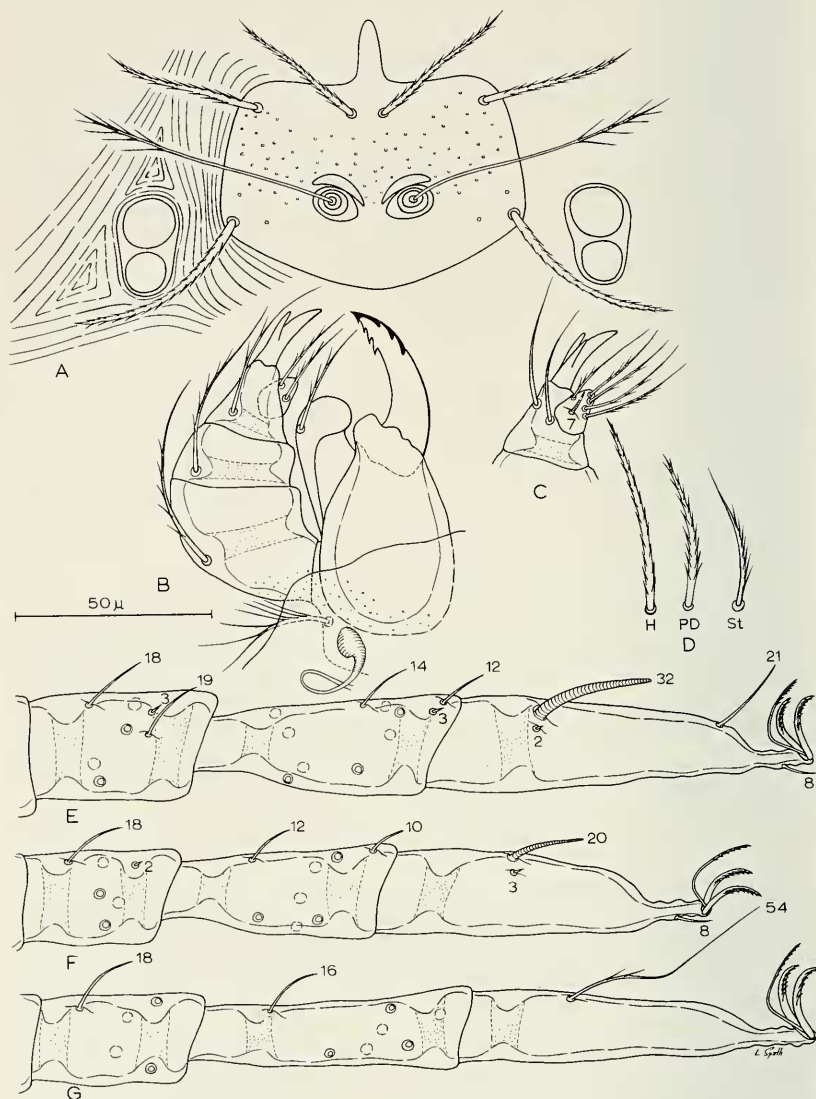


Figure 1. Larva of *Odontacarus robbinsi*, n. sp. A. Scutum and eyes. B. Dorsal aspect of gnathosoma. C. Ventral aspect of palpotibia and tarsus. D. Body setae: H, humeral; PD, posterior dorsal; St, Sternal. E. leg I, showing nude setae and measurements. F. leg II, as above. G. leg III, as above.